



FSC-US Questions and Answers for Family Forest Owners

Forest Plantations

The FSC-US Forest Management Standard recognizes two categories of planted trees: conventional plantations and “Principle 10 Plantations”. Conventional types of tree plantations – the vast majority of planting projects in the United States – are treated the same as natural and semi-natural¹ forests under the FSC-US Standard. Special considerations apply to Principle 10 Plantations, which are highly regimented and made up of blocks of exotic trees (like Eucalyptus plantings in the United States), cloned trees lacking natural genetic variation and other types of forest trees that lack traits of natural forests. The FSC-US Standard aims to prevent further loss of natural and semi-natural forests to Principle 10 Plantations. While Principle 10 Plantations have a place and can actually take some of the pressure off natural forests for commercial products, they generally lack biodiversity and are not as good for wildlife.

Question 1: If I am planting trees on a site that is an old field or existing forestland, how can I avoid categorization under FSC Principle 10?

Answer: Take the following measures:

1. Plant species of trees native to the area. It’s alright to use stock from tree improvement programs that involve traditional tree selection, breeding and hybridization techniques.
2. If necessary, prepare the site with mechanical, chemical or burning methods intended to mimic natural disturbances favorable to tree regeneration. This includes treatments to ensure seedling survival the first few years after planting. Plan ahead to develop forest structure needed for wildlife habitat by considering how the planted trees fit into the surrounding cover types. Leave some areas untreated if suitable for intended habitat conditions.
3. Avoid ongoing, systematic application of chemical pesticides or mechanical treatments (like tilling) that would prevent the establishment of a natural understory. Take appropriate measures, however, if invasive species threaten forest health. Use periodic burns if fire is part of the natural process (as with long-leaf pine in the South) for maintaining the understory.
4. During intermediate thinning operations, retain trees as fitting for natural stand structure needed by wildlife. This might involve leaving some hardwoods, dead trees or defective trees that could serve for wildlife food sources or shelter. Don’t try to “cleanse” the forest stand of all less than perfect planted trees or other native trees that might have found their way in.
5. Allow the plantation to grow at least to the mid-developmental stage where gaps in the canopy allow a natural understory to start. Ground vegetation, shrubs and sapling trees are valuable for wildlife and may provide natural regeneration options for the next forest stand.
6. Do not manage the stand for repeated early-rotation timber crops that cut short a progression to larger trees and natural conditions for native plants and animals in the understory.

Question 2: What are the main characteristics that would categorize planted trees as a “Principle 10 Plantation?”

¹ Semi-natural forests have been disturbed by human activities like harvesting, livestock grazing or past tree planting practices, but they have recovered some of the inherent complexity, structure, wildlife and biodiversity of native ecosystems.

Answer: Using certain types of tree planting stock would automatically be classified as a Principle 10 Plantation. These include exotic trees and block plantings of cloned trees. Cultivating trees on native non-forested ecosystems (e.g., in native prairies) would be an automatic Principle 10 Plantation as well.

There are also management practices that could effectively disrupt the main traits of a native forest and result in a Principle 10 Plantation tag. These include:

- Harvest cycles short enough to prevent stands from developing natural understory stages
- Steady use of chemical herbicides
- Frequent fertilization (such as spreading solid/liquid wastes)
- Excessive chemical or mechanical site treatments
- Management practices that promote single species on sites normally occupied by multiple-species forests
- Use of even-aged silviculture for forest types that do not typically grow that way
- Failing to leave at least minimal trees or undisturbed spots for the benefit of wildlife
- Other extreme measures that subvert the development of natural forest conditions

Question 3: Are Principle 10 Plantations eligible for FSC certification?

Answer: Depending upon the circumstances, the answer could be either yes or no.

- No - If you were to convert natural or semi-natural forest stands to Principle 10 Plantations today or if you did so after November 1994.
- Yes - If the land had been converted to Principle 10 Plantations prior to November 1994.
- Yes - If the conversion from natural or semi-natural forest occurred since November 1994 but you were not directly or indirectly responsible for the conversion. If the conversion occurred since that date, however, you would be obliged to undertake measures like enrichment plantings of native species or recruiting leave trees for wildlife habitat to begin restoring natural forest conditions.

Question 4: Can I plant clonal varieties of trees, non-native tree species or take other extraordinary measures to establish trees on old agricultural fields that were cleared decades ago?

Answer: Yes, if you were not responsible for converting the sites from forestland to the disturbed condition after 1994. Disturbed sites like old fields and mining reclamation can be afforested using radical techniques involving exotic trees and cloned trees, provided the stock is not the product of artificial genetic engineering. Such parcels of land would, however, be subject to the management considerations in Principle 10.

Question 5: What sort of special factors apply to lands with Principle 10 Plantations that are accepted for FSC certification?

Answer: Most people will likely find the Principle 10 considerations quite reasonable. Depending on how much land you own, a percentage of the forest must be retained in or restored to natural forest conditions. For family forests, restoration areas would typically be 10% - 20% of the land (see box, below). There are additional requirements related to retention of trees during harvests, opening size limits and other measures intended to reduce the environmental impact of Principle 10 Plantations that are detailed in the FSC-US Standard.

For FSC Principle 10 Plantations established before 1995, the minimum percentage area that is maintained and/or restored in natural or semi-natural state is:

- For 100 acres or less, at least 10 percent
- For 101-1,000 acres, at least 15 percent
- For 1,001-10,000 acres, at least 20 percent
- For > 10,000 acres, at least 25 percent

For Principle 10 Plantations established after 1994, the entire area must be restored to natural/semi-natural forest, but the standard provides allowances to phase in restoration efforts to recoup investments in younger stands.

Question 6: What sort of management activities are allowed on the restoration areas if I have Principle 10 Plantations? Are they 'set aside' areas that are off-limits to timber harvesting?

Answer: No, they need not be set asides or 'preserves'. Some landowners might elect to manage streamside zones, wetlands or some other low-intensity management area as their natural forest restoration. Others could choose to designate sites that are actively managed for commercial timber, including planted trees. The difference is that in those areas, traditional silvicultural practices for natural forests would be followed rather than high-intensity production plantation strategies such as those that characterize Principle 10 plantations.

Examples of activities that are carried out in restoration plantations include:

- Modification of the management plan for restoration practices;
- Enrichment plantings of native species;
- Management of soils and coarse woody debris to restore or enhance soil fertility;
- Restoration and/or enhancement of native wildlife habitats;
- Restoration and/or enhancement of structural diversity by recruiting mid-story and/or understory components;
- Control of unwanted vegetation is limited to levels that allow restoration of native species;
- Restoration of the fire regime common to natural stands is implemented when feasible.

Question 7: Are there any tools available to help resource managers determine if a plantation could be classified as a natural/semi-natural forest or whether it would come under FSC Principle 10 requirements?

Answer: Yes, FSC-US has developed a *Plantation Decision Tree Tool*. It is an Excel-format workbook that contains a series of questions to help managers evaluate plantations. The tool is available for download from the FSC-US web site: http://www.fscus.org/standards_criteria/family_forests_program.php. In time, a series of example evaluations will be added.